

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059526 A1

(51) International Patent Classification⁷: **G01N 21/65,**
G01J 3/44

(21) International Application Number:
PCT/IB2004/052771

(22) International Filing Date:
13 December 2004 (13.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03104718.6 16 December 2003 (16.12.2003) EP

(71) Applicant (for all designated States except US): **KONIN-
KLJKE PHILIPS ELECTRONICS N. V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **VAN DER VOORT,**

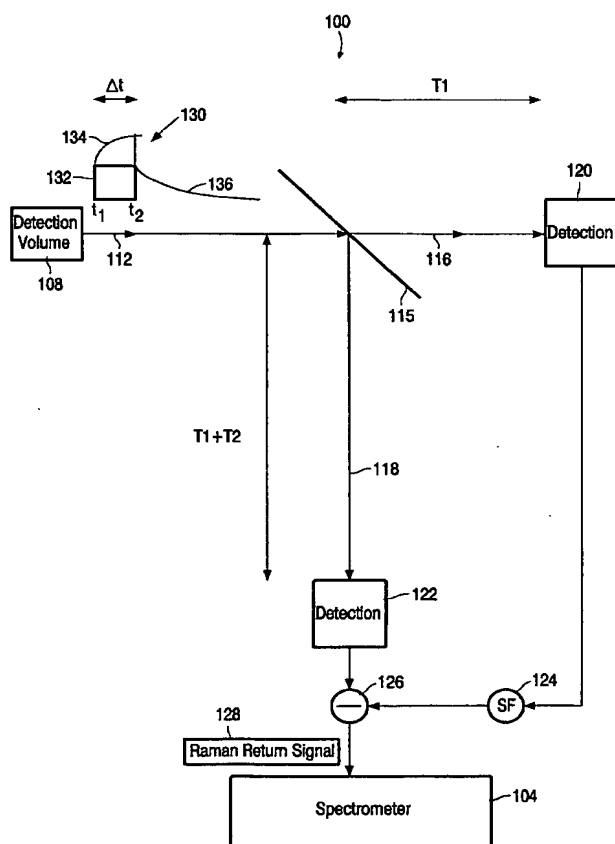
Marjolein [NL/DE]; c/o Philips Intellectual Property
& Standards GmbH, Weisshausstr. 2, 52066 Aachen
(DE). **LUCASSEN, Gerhardus Wilhelmus** [NL/DE];
c/o Philips Intellectual Property & Standards GmbH,
Weisshausstr. 2, 52066 Aachen (DE). **PUPPELS, Ger-
win Jan** [NL/DE]; c/o Philips Intellectual Property &
Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).
VAN BEEK, Michael Cornelis [NL/DE]; c/o Philips
Intellectual Property & Standards GmbH, Weisshausstr. 2,
52066 Aachen (DE). **LIEDENBAUM, Coen Theodorus
Hubertus Fransiscus** [NL/DE]; c/o Philips Intellectual
Property & Standards GmbH, Weisshausstr. 2, 52066
Aachen (DE).

(74) Agents: **VOLMER, Georg** et al.; Philips Intellectual
Property & Standards GmbH, Weisshausstr. 2, 52066
Aachen (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR OPTICAL SPECTROSCOPY



(57) Abstract: The present invention provides for a method of optical spectroscopy, in particular Raman spectroscopy for performing invasive or non-invasive blood analysis. The fluorescence component of return radiation which is received from a detection volume is eliminated which is enabled by the usage of a pulsed excitation light source. The pulse length is substantially shorter than the fluorescence life time. Hence, the elimination of the fluorescence component can be performed by time gating or by other electronics or optical means.



AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.